

REMARKS

Drawings:

Applicant thanks the Examiner for indicating that drawings filed on July 22, 2002 have been accepted.

Claim Rejections:

Claims 11-10, 12-24, 26-37 and 39-41 are all of the claims that have been examined in the present application, and currently all of these claims stand rejected.

35 U.S.C. § 102(e) Rejection - Claims 1, 12, 29, and 39:

Claims 1, 12, 29 and 39 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the '009 Patent to Risch. In view of the following discussion, Applicant respectfully disagrees.

Claim 1:

With regard to claim 1, Applicant notes that Risch fails to disclose a fiber optic cable having at least one gel-swellaable portion which is proximate to an inner surface of an outer layer, where the gel-swellaable portion has a density less than 0.90 g/cc and the outer layer has a density of 0.90 g/cc or more. In Risch, the Examiner is relying on the buffer tubes 12 as the "swellaable" layer of the present invention, however, there is no disclosure of any kind regarding the density of the buffer tube 12 with respect to the outer layer, as set forth in claim 1.

Claim 29:

With regard to claim 29, Applicant notes that Risch fails to disclose a fiber optic cable having at least one gel-swellaable portion which is proximate to an inner surface of an outer layer or an outer surface of an optical fiber, where the gel-swellaable portion is made from a material softer than the surface to which it is proximate to. In Risch, the Examiner is relying on the

buffer tubes 12 as the “swellable” layer of the present invention, however, there is no disclosure of any kind regarding the material hardness of the buffer tube 12 with respect to the outer layer, as set forth in claim 1.

Therefore, in view of the foregoing, Applicant submits that Risch fails to disclose each and every feature of the claimed invention, as set forth in claims 1 and 29, and hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 102(e) rejection of these claims. Further, as claims 12 and 39 depend on these claims, Applicant respectfully submits that these claims are also allowable, at least by reason of their dependence.

35 U.S.C. § 103(a) Rejection - Claims 2-10, 13-14, 30-37, and 40-41:

Claims 2-10, 13-14, 30-37 and 40-41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘009 patent in view of the ‘023 patent. However, since claims 2-10, 13-14, 30-37 and 40-41 depend on claims 1 and 29, respectively, Applicant submits that these claims are also allowable, at least by reason of their dependence.

35 U.S.C. § 103(a) Rejection - Claims 15-24 and 26-28:

Claims 15-24 and 26-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘009 patent in view of the ‘023 patent.

Applicant again notes that neither of the ‘009 or the ‘023 patents disclose, teach or suggest, either individually or in combination, having a gel-swellable portion contacting an outer surface of an optical fiber which absorbs gel and swells more than 10% at 85°C. It is for at least this reason that Applicant submits that the combination of the above references fails to disclose, teach or suggest each and every feature of the claimed invention. *See* claim 15.

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Application No.: 09/851,247

Our Ref.: A7966
Art Unit: 2874

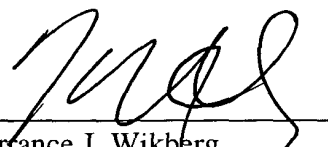
Therefore, Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 15, and hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of this claim. Further, as claims 16-24 and 26-28 depend on this claim, Applicant submits that these claims are also allowable, at least by reason of their dependence.

Conclusion:

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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PATENT TRADEMARK OFFICE

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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Twice Amended) A fiber optic cable, comprising:

an outer layer;

at least one optical fiber disposed inside said outer layer; ~~and~~

at least one a gel-swellable portion -proximate to an inner surface of said outer layer; and

a water resistant gel positioned adjacent to each other and said gel-swellable portion and

disposed between said outer layer and said optical fiber;

wherein said gel-swellable portion ~~absorbs at least some of said gel, and wherein said~~
~~gel-swellable portion swells more than 10% at 85°C~~ has a density of less than 0.90 g/cc and said
outer layer has a density of at least 0.90 g/cc.
2. (Amended) The fiber optic cable according to claim 1, wherein said at least one gel-
swellable portion is a continuous layer surrounding said at least one optical fiber.
3. (Amended) The fiber optic cable according to claim ~~2~~1, wherein said at least one
~~continuous layer~~gel-swellable portion has an uneven thickness.
4. (Amended) The fiber optic cable according to claim 1, wherein said at least one gel-
swellable portion has a smooth surface.

5. (Amended) The fiber optic cable according to claim 1, wherein said at least one gel-swallowable portion is ~~adhered to an outer surface of said at least one optical fiber~~ has at least one groove in a surface of said at least one gel-swallowable portion.

6. (Amended) The fiber optic cable according to claim 1, wherein said at least one gel-swallowable portion is ~~adhered to an inner surface of said outer layer~~ made from at least one longitudinally running strip.

7. (Amended) The fiber optic cable according to claim 1, ~~wherein said at least one gel swallowable portion extends longitudinally along the length of said at least at least one optical fiber~~ further comprising a second gel-swallowable portion positioned between said gel-swallowable portion and said at least one optical fiber.

8. (Amended) The fiber optic cable according to claim 1, wherein said at least one gel-swallowable portion has ~~an uneven thickness~~ a corrugated surface which is adjacent to said gel.

9. (Amended) The fiber optic cable according to claim 1, wherein ~~said gel swallowable portion has a density less than 0.90 g/cc~~ at least one gel-swallowable portion contacts said inner surface of said outer layer.

10. (Amended) The fiber optic cable according to claim 1, wherein said at least one gel-swellable portion is one of a copolymer or terpolymer of polyethelene.

11. (Re-Add) The fiber optic cable according to claim 1, wherein said gel-swella

ble portion swells more than 10% at 85°C.

13. (Amended) The fiber optic cable according to claim 1, wherein said at least one gel-swellable portion is a polyolefin swella

ble material.

14. (Amended) The fiber optic cable according to claim 1, wherein the material of said at least one gel-swellable portion is softer than the material of said outer layer.

15. (Twice Amended) A fiber optic cable, comprising:

an outer layer;

at least one optical fiber ~~ribbon~~ disposed inside said outer layer; ~~and~~

a gel-swella

ble ~~layer~~ portion contacting an outer surface of said optical fiber; and

a water resistant gel positioned adjacent to ~~each other~~ said gel-swellable ~~portion and~~

~~disposed between said outer layer and said ribbon;~~

wherein said gel swella

ble ~~layer~~ portion absorbs at least some of a said gel, and wherein

said gel-swella

ble ~~layer~~ portion swells more than 10% at 85°C.

16. (Amended) The fiber optic cable according to claim 15, wherein said gel-swellable portion is a continuous layer surrounding said at least one ~~ribbon~~optical fiber.

17. (Amended) The fiber optic cable according to claim ~~16~~15, wherein said ~~continuous layer~~gel-swellable portion has an uneven thickness.

18. (Amended) The fiber optic cable according to claim 15, wherein said ~~at least one gel-swellable portion~~ has a smooth surface.

19. (Amended) The fiber optic cable according to claim 15, wherein said ~~at least one gel-swellable portion is secured to an outer surface of said at least one ribbon~~has at least one groove in a surface of said gel-swellable portion.

20. (Amended) The fiber optic cable according to claim 15, wherein said ~~at least one gel-swellable portion is secured to an inner surface of said outer layer~~made from at least one longitudinally running strip.

21. (Amended) The fiber optic cable according to claim 15, ~~wherein said at least one gel-swellable portion extends longitudinally along the length of said at least one ribbon~~further comprising a second gel-swellable portion positioned between said gel-swellable portion and said outer jacket.

22. (Amended) The fiber optic cable according to claim 15, wherein said ~~at least one gel-~~swellable portion has ~~an uneven thickness~~ a corrugated surface which is adjacent to said gel.

27. (Amended) The fiber optic cable according to claim 15, wherein said gel-swellable layer portion is a polyolefin swellable material.

28. (Amended) The fiber optic cable according to claim 15, wherein the material of said gel-swellable portion is softer than the material of said outer layer.

29. (Twice Amended) A fiber optic cable, comprising:
an outer layer, ~~having at least one gel-swella~~ ble portion adhered to an inside surface of
said outer layer;
at least one optical fiber; ~~and~~
a water resistant gel disposed between said at least one optical fiber and said outer layer;
and
at least one gel-swella ble portion proximate to one of an inner surface of said outer layer
and an outer surface of said optical fiber;

wherein said gel-swellable portion ~~absorbs at least some of said gel, and wherein said~~
gel-swella ble portion swells more than 10% at 85°C is made from a material softer than said one
of said inner surface and said outer surface to which said gel-swella ble portion is adhered to.

30. (Amended) The fiber optic cable according to claim 29, wherein said at least one gel-swella
ble portion is a continuous layer on said inner surface of said outer layer.

31. (Amended) The fiber optic cable according to claim ~~30~~29, wherein said
continuous layer at least one gel-swella
ble portion has an uneven thickness.

32. (Amended) The fiber optic cable according to claim 29, wherein said at least
one gel-swella
ble portion has a smooth surface.

33. (Amended) The fiber optic cable according to claim 29, ~~further comprising at~~
~~least one other gel-swella~~
~~ble portion adhered to an outer surface of said at least one optical~~
~~fiber~~wherein said at least one gel-swella
ble portion has a groove in a surface of said at least one
gel-swella
ble portion.

34. (Amended) The fiber optic cable according to claim 29, wherein said at least
one gel-swella
ble portion ~~extends longitudinally along the length of said outer layer~~is made from
at least one longitudinally running strip.

35. The fiber optic cable according to claim 29, ~~wherein said at least one gel-~~
~~swella~~
~~ble portion has an uneven thickness~~further comprising a second gel-swella
ble portion

positioned between said at least one gel-swellable portion and the other of said outer surface and said inner surface.

36. (Amended) The fiber optic cable according to claim 29, wherein said at least one gel-swellable portion has a density less than 0.90 g/cc.

37. (Amended) The fiber optic cable according to claim 29, wherein said at least one gel-swellable portion is one of a copolymer or terpolymer of polyethelene.

40. (Amended) The fiber optic cable according to claim 29, wherein said at least one gel-swellable portion is a polyolefin swellable material.

41. (Amended) The fiber optic cable according to claim 29, wherein said at least one gel-swellable portion ~~is softer than said outer layer~~ has a corrugated surface.

Claims 42-44 are added as new claims.